1

TEST AREA PORTION OF BRABB AND PAMPEYAN'S PRELIMINARY MAP OF LANDSLIDE DEPOSITS IN SAN MATEO COUNTY, CALIFORNIA, 1972

MAP SYMBOLS

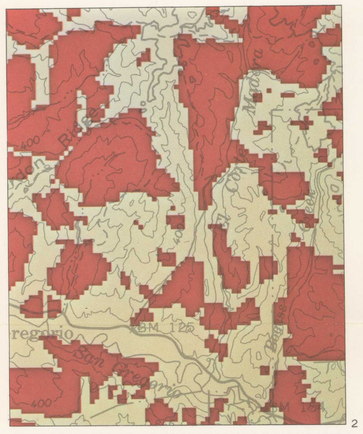
LANDSLIDE DEPOSITS MAPPED BY PHOTOINTERPRETATION

Large landslide deposit

More than 500 feet in maximum dimension. Arrows indicate general direction of down slope movement (omitted for lack of space on some landslides). D, *definite landslide deposit;* P, *probable landslide deposit;* ?, *questionable landslide deposit. Hachured line shows the approximate position of an inferred main scarp*

Small landslide deposit

50 to 500 feet in maximum dimension. Arrow indicates general direction of downslope movement and is centered over location of deposit.



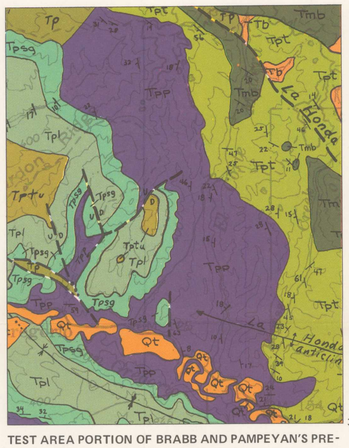
2

COMPUTER VERSION OF THE LANDSLIDE DEPOSIT MAP

EXPLANATION

Landslide deposit

Units include deposits and scarps but exclude the small landslide deposits. Boundaries were digitized from map 1, converted into grid cells by computer, and plotted.



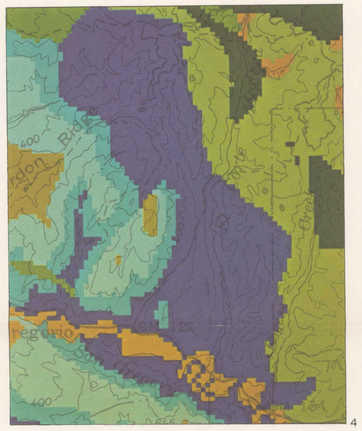
3

TEST AREA PORTION OF BRABB AND PAMPEYAN'S PRELIMINARY GEOLOGIC MAP OF SAN MATEO COUNTY, CALIFORNIA, 1972

EXPLANATION

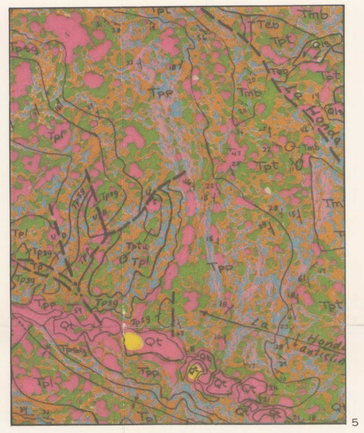
Qt | Tp | Tptu | Tpl | Tpsg | Tpp | Tpt | Tmb | Tb

See table 1 for rock unit description



4

COMPUTER VERSION OF MAP 3. THE UNIT BOUNDARIES WERE DIGITIZED FROM MAP 3, CONVERTED INTO GRID CELLS BY COMPUTER, AND PLOTTED



5

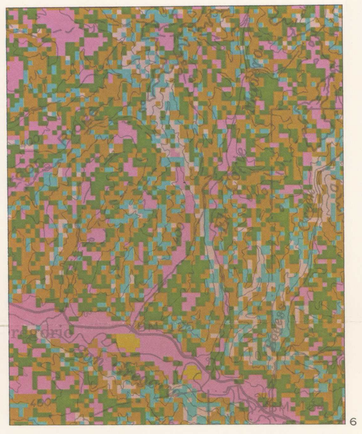
TEST AREA PORTION OF EXPERIMENTAL SLOPE MAP OF SAN MATEO COUNTY, PREPARED BY MANUAL AND PHOTOMECHANICAL METHODS

EXPLANATION

0–5 | 5–15 | 15–30 | 30–50 | 50–70 | 70

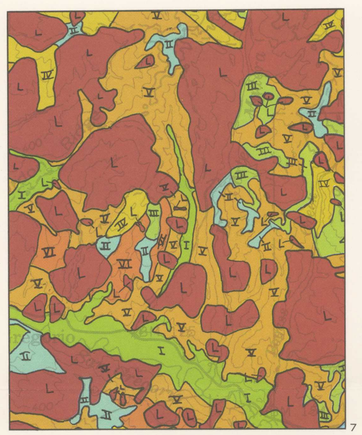
Percent slope intervals

The intervals were selected after interviews with city, county, and regional planners in order to determine which slope categories would be most useful



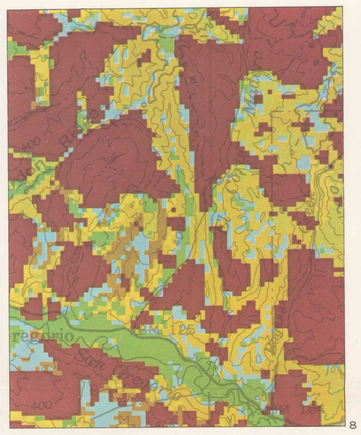
6

COMPUTER VERSION OF MAP 5. SLOPE INTERVAL VALUES WERE CONVERTED INTO GRID-CELL FORM BY OVERLAYING THE ORIGINAL MAP WITH A GRID, DIGITIZING DIRECTLY, AND PLOTTING



7

TEST AREA PORTION OF BRABB, PAMPEYAN, AND BONILLA'S MAP OF LANDSLIDE SUSCEPTIBILITY IN SAN MATEO COUNTY, CALIFORNIA, 1972



8

COMPUTER VERSION OF MAP 7. UNIT BOUNDARIES DETERMINED BY ANALYZING LANDSLIDE, GEOLOGIC, AND SLOPE GRID CELL DATA, THEN ASSIGNING SUSCEPTIBILITY NUMBERS FROM TABLE 1 IN TEXT

EXPLANATION OF LANDSLIDE SUSCEPTIBILITY MAP UNITS

I — AREAS LEAST SUSCEPTIBLE TO LANDSLIDING – Very small landslides in these areas. Formation of large landslides is possible but unlikely except during earthquakes. Slopes generally less than 15 percent, but may include small areas of steeper slopes that could have higher susceptibility. Some of the areas may be more susceptible to landsliding if they are overlain by thick deposits of soil, slopewash, or ravine fill. Rockfalls may also occur on steep slopes. Also includes areas along creeks and rivers that may fail by landsliding during earthquakes. If area is adjacent to area with higher susceptibility, a landslide may encroach onto the area

II — LOW SUSCEPTIBILITY TO LANDSLIDING – Several small landslides have occurred in these areas and some have caused extensive damage to homes and roads. A few large landslides may occur. Slopes vary from 6 to 15 percent for unstable rock units to more than 70 percent for rock units that seem to be stable. Other slope stability problems are mentioned in 1 above

III — MODERATE SUSCEPTIBILITY TO LANDSLIDING – Many small landslides have occurred in these areas and several have caused extensive damage to homes and roads. Some large landslides likely. Slopes vary from 16 to 30 percent in areas underlain by unstable rock units, up to 70 percent for rock units that seem to be stable. See 1 for additional slope stability problems

IV — MODERATELY HIGH SUSCEPTIBILITY TO LANDSLIDING – Slopes all greater than 31 percent. Several large landslides likely. See 1 for additional slope stability problems

V — HIGH SUSCEPTIBILITY TO LANDSLIDING – Slopes all greater than 31 percent. Many large and small landslides may occur. See 1 for additional slope stability problems

VI — VERY HIGH SUSCEPTIBILITY TO LANDSLIDING – Slopes all greater than 31 percent. Many large and small landslides are likely. See 1 for additional slope stability problems

L — HIGHEST SUSCEPTIBILITY TO LANDSLIDING – Consists of landslide and possible landslide deposits. No small landslide deposits are shown. Some of these areas may be relatively stable and suitable for development, whereas others are active and causing damage to roads, houses and other cultural features

SCALE 1:62 500

1 ½ 0 1 2 3 4 5 MILES

1 .5 0 1 2 3 4 5 6 7 KILOMETERS

CONTOUR INTERVAL 200 FEET
DATUM IS MEAN SEA LEVEL

Index map showing San Mateo County, California, and location of test area

Base from U.S. Geological Survey, 1:125,000, San Francisco Bay Region, Sheet 3, 1971

☆ Interior—Geological Survey, Reston, VA – 1978 – G77132

COMPARISON OF MANUAL AND COMPUTER-GENERATED MAPS OF TEST AREA IN SAN MATEO COUNTY, CALIFORNIA